



(11) **EP 0 795 612 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
24.03.1999 Bulletin 1999/12

(51) Int Cl.<sup>6</sup>: **C12Q 1/68**

(43) Date of publication A2:  
17.09.1997 Bulletin 1997/38

(21) Application number: **97301591.0**

(22) Date of filing: **11.03.1997**

(84) Designated Contracting States:  
**AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC  
NL PT SE**

(30) Priority: **11.03.1996 US 613571**

(71) Applicant: **Johnson & Johnson Clinical  
Diagnostics, Inc.  
Rochester New York 14650 (US)**

(72) Inventors:  
• **Backus, John Wesley  
Williamson, NY 14589 (US)**

• **Kramer, Marcia Lynn  
Rochester, NY 14615 (US)**  
• **Falvo, Joseph  
Rochester, NY 14617 (US)**

(74) Representative: **Mercer, Christopher Paul  
Carpmaels & Ransford  
43, Bloomsbury Square  
London WC1A 2RA (GB)**

(54) **Amplifying and detecting target nucleic acids using a post amplification incubation step**

(57) The present invention relates to a method for amplifying and detecting a target nucleic acid. The method comprising contacting a sample suspected of containing the target nucleic acid with a thermostable DNA polymerase and two primers that are substantially complementary to the target nucleic acid, under conditions such that the target nucleic acid is amplified. The

amplified target nucleic acids are then denatured to form single stranded nucleic acids. Following amplification, the sample is subject to a pre-detection incubation step. The sample is incubated for between 1 second and 30 minutes at between 95°C and 120°C to inactivate said polymerization agent. Finally, the presence or absence of the amplified target nucleic acids is determined.

**EP 0 795 612 A3**



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 97 30 1591

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	EP 0 511 712 A (EASTMAN KODAK CO) 4 November 1992 * page 2, line 29-35 * * page 10, line 5-17 * * page 7, line 8-12 * * page 8, line 12-45; claims * ---	1,3-13	C12Q1/68
X	WO 94 03635 A (INST OF MOLECULAR BIOLOGY & BI) 17 February 1994 * page 8, line 10 - page 9, line 8 * * page 19, line 7-11 * * page 20, line 1 - page 21, line 4 * ---	1,3-13	
A	WO 96 06190 A (PERKIN ELMER CORP) 29 February 1996 * page 19, line 1-17 * ---	1,2	
A	WO 91 09944 A (CETUS CORP) 11 July 1991 * page 19, line 23-27 * * page 36, line 33 - page 37, line 30 * -----	1,3-13	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			C12Q
The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>1 February 1999</b>	Examiner <b>REUTER, U</b>
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03.92 (P04001)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 97 30 1591

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

01-02-1999

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0511712 A	04-11-92	AT 163681 T	15-03-98
		CA 2065719 A	31-10-92
		DE 69224548 D	09-04-98
		DE 69224548 T	20-08-98
		FI 921945 A	31-10-92
		JP 5304960 A	19-11-93
		MX 9201948 A	01-11-92
WO 9403635 A	17-02-94	NONE	
WO 9606190 A	29-02-96	AU 699676 B	10-12-98
		AU 3332295 A	14-03-96
		CA 2195562 A	29-02-96
		EP 0777749 A	11-06-97
		JP 9511653 T	25-11-97
WO 9109944 A	11-07-91	US 5322770 A	21-06-94
		AT 151112 T	15-04-97
		AU 656315 B	02-02-95
		AU 7244491 A	24-07-91
		CA 2071213 A	23-06-91
		DE 69030386 D	07-05-97
		DE 69030386 T	09-10-97
		DK 506889 T	22-09-97
		EP 0506889 A	07-10-92
		ES 2100945 T	01-07-97
		GR 3023862 T	30-09-97
		JP 5505105 T	05-08-93
		US 5407800 A	18-04-95
		US 5310652 A	10-05-94
		US 5618703 A	08-04-97
		US 5641864 A	24-06-97
		US 5693517 A	02-12-97
		US 5561058 A	01-10-96
		US 5795762 A	18-08-98
		US 5466591 A	14-11-95
		AT 169337 T	15-08-98
		AU 681387 B	28-08-97
		AU 6329694 A	01-09-94
		AU 646430 B	24-02-94

EPO FORM P/469

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 97 30 1591

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

01-02-1999

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9109944 A		AU 7176491 A	24-07-91
		CA 2071196 A	23-06-91
		DE 69032543 D	10-09-98
		EP 0506825 A	07-10-92
		ES 2121777 T	16-12-98
		JP 2790448 B	27-08-98
		JP 9224682 A	02-09-97
		JP 2774192 B	09-07-98
		JP 5504887 T	29-07-93
		SG 46627 A	20-02-98
		WO 9109950 A	11-07-91
		US 5618711 A	08-04-97
		US 5789224 A	04-08-98
-----			

EPO FORM P0189 For more details about this annex : see Official Journal of the European Patent Office, No. 12/82